DIMENSIONS OF TAPER KEYS AND KEYWAYS—III

Diameter of Shaft, Inches D	Width of Key, Inches W	Thickness of Key, Inches T	Hub Dimension for Keyway at Thin End, Inches H	Shaft Dimension for Keyway, Inches S	Diameter of Shaft, Inches D	Width of Key, Inches W	Thickness of Key, Inches T	Hub Dimension for Keyway at Thin End, Inches H	Shaft Dimension for Keyway, Inches S
4 5/16	1	1 1/16	4 19/32	3 29/32	5 1/2	1 1/4	1 3/16	5 7/8	5 1/16
4 3/8	1 1/8	7/8	4 11/16	3 15/16	5 5/8	1 1/4	1 3/16	6	5 3/16
4 7/16	1 1/8	7/8	4 3/4	4	5 11/16	1 1/4	1 3/16	6 1/16	5 1/4
4 1/2	1 1/8	7/8	4 13/16	4 1/16	5 3/4	1 1/4	1 3/16	6 1/8	5 5/16
4 9/16	1 1/8	7/8	4 7/8	4 1/8	5 7/8	1 1/2	7/8	6 1/4	5 3/8
4 5/8	1 1/8	7/8	4 15/16	4 3/16	6	1 1/2	7/8	6 3/8	5 1/2
4 11/16	1 1/8	7/8	5	4 1/4	6 1/8	1 1/2	7/8	6 1/2	5 5/8
4 3/4	1 1/8	7/8	5 1/16	4 5/16	6 1/4	1 1/2	7/8	6 5/8	5 3/4
4 7/8	1 1/4	1 3/16	5 1/4	4 7/16	6 3/8	1 1/2	7/8	6 3/4	5 7/8
4 15/16	1 1/4	1 3/16	5 5/16	4 1/2	6 1/2	1 1/2	7/8	6 7/8	6
5	1 1/4	1 3/16	5 3/8	4 9/16	6 5/8	1 1/2	7/8	7	6 1/8
5 1/8	1 1/4	1 3/16	5 1/2	4 11/16	6 7/8	1 3/4	1	7 1/4	6 1/4
5 3/16	1 1/4	1 3/16	5 9/16	4 3/4	7 1/8	1 3/4	1	7 1/2	6 1/4
5 1/4	1 1/4	1 3/16	5 5/8	4 13/16	7 3/8	1 3/4	1	7 3/4	6 1/2
5 3/8	1 1/4	1 3/16	5 3/4	4 15/16	7 5/8	1 3/4	1	8	7
5 7/16	1 1/4	1 3/16	5 13/16	5	7 7/8	2	1 3/16	8 3/8	7 3/16

Contributed by G. G. Dana

SELECTING CUTTER FOR MILLING SPIRAL GEARS

HOW TO USE THE TABLE

Multiply the actual number of teeth in the spiral gear to be cut by the factor K as given in the table opposite the angle of spiral. ($K = 1 \div \cos^3 a$). The product gives the number of teeth for which to select the cutter.

Example: Angle of spiral = 30°; number of teeth in spiral gear = 18 Then: 18 × 1.540 = 28, approximately. Hence, use spur gear cutter for 28 teeth, or spur gear cutter No. 4.

Angle of Spiral, a	K	Angle of Spiral, a	K	Angle of Spiral, a	K	Angle of Spiral, a	K	Angle of Spiral, a	K
0° 0'	1.000	17° 0'	1.145	34° 0'	1.755	51° 0'	4.012	68° 0'	18.98
0° 30'	1.000	17° 30'	1.154	34° 30'	1.787	51° 30'	4.144	68° 30'	20.38
1° 0'	1.001	18° 0'	1.163	35° 0'	1.819	52° 0'	4.284	69° 0'	21.72
1° 30'	1.001	18° 30'	1.172	35° 30'	1.853	52° 30'	4.433	69° 30'	23.38
2° 0'	1.002	19° 0'	1.182	36° 0'	1.889	53° 0'	4.586	70° 0'	25.00
2° 30'	1.003	19° 30'	1.193	36° 30'	1.926	53° 30'	4.752	70° 30'	26.97
3° 0'	1.004	20° 0'	1.204	37° 0'	1.963	54° 0'	4.925	71° 0'	28.97
3° 30'	1.005	20° 30'	1.216	37° 30'	2.003	54° 30'	5.101	71° 30'	31.40
4° 0'	1.007	21° 0'	1.228	38° 0'	2.044	55° 0'	5.295	72° 0'	33.88
4° 30'	1.009	21° 30'	1.241	38° 30'	2.086	55° 30'	5.497	72° 30'	36.92
5° 0'	1.011	22° 0'	1.254	39° 0'	2.130	56° 0'	5.710	73° 0'	40.00
5° 30'	1.013	22° 30'	1.268	39° 30'	2.176	56° 30'	5.940	73° 30'	43.88
6° 0'	1.016	23° 0'	1.282	40° 0'	2.225	57° 0'	6.190	74° 0'	47.79
6° 30'	1.019	23° 30'	1.297	40° 30'	2.275	57° 30'	6.435	74° 30'	54.72
7° 0'	1.022	24° 0'	1.312	41° 0'	2.326	58° 0'	6.720	75° 0'	57.68
7° 30'	1.026	24° 30'	1.328	41° 30'	2.380	58° 30'	7.010	75° 30'	64.15
8° 0'	1.030	25° 0'	1.344	42° 0'	2.436	59° 0'	7.321	76° 0'	70.65
8° 30'	1.034	25° 30'	1.360	42° 30'	2.495	59° 30'	7.650	76° 30'	79.20
9° 0'	1.038	26° 0'	1.377	43° 0'	2.557	60° 0'	8.000	77° 0'	87.78
9° 30'	1.042	26° 30'	1.395	43° 30'	2.621	60° 30'	8.380	77° 30'	99.50
10° 0'	1.047	27° 0'	1.414	44° 0'	2.687	61° 0'	8.780	78° 0'	111.8
10° 30'	1.052	27° 30'	1.434	44° 30'	2.756	61° 30'	9.209	78° 30'	144.0
11° 0'	1.057	28° 0'	1.454	45° 0'	2.828	62° 0'	9.658	79° 0'	191.2
11° 30'	1.062	28° 30'	1.474	45° 30'	2.902	62° 30'	10.16	80° 0'	261.4
12° 0'	1.068	29° 0'	1.495	46° 0'	2.983	63° 0'	10.69	81° 0'	370.6
12° 30'	1.074	29° 30'	1.517	46° 30'	3.066	63° 30'	11.27	82° 0'	552.1
13° 0'	1.080	30° 0'	1.540	47° 0'	3.152	64° 0'	11.87	83° 0'	876.4
13° 30'	1.087	30° 30'	1.563	47° 30'	3.242	64° 30'	12.55	84° 0'	1509.0
14° 0'	1.094	31° 0'	1.588	48° 0'	3.336	65° 0'	13.25	85° 0'	2940.0
14° 30'	1.102	31° 30'	1.613	48° 30'	3.436	65° 30'	14.03	86° 0'	6900.0
15° 0'	1.110	32° 0'	1.640	49° 0'	3.540	66° 0'	14.86	87° 0'	.....
15° 30'	1.118	32° 30'	1.667	49° 30'	3.650	66° 30'	15.80		.....
16° 0'	1.127	33° 0'	1.695	50° 0'	3.767	67° 0'	16.76		.....
16° 30'	1.136	33° 30'	1.724	50° 30'	3.887	67° 30'	17.85		.....

Contributed by George W. Burley